

DETAILED ACTION

1. This communication is in response to the Request for Continued Examination filed on 15 April 2009.
2. Claims 1-4, 12-38 and 47 are currently pending. In the Amendment filed 15 April 2009, claims 1, 37 and 38 are amended. As a result of the Amendment filed 15 April 2009 and the Examiner's Amendment stated below, claims 1-4, 12-38 and 47 (renumbered as 1-32) are allowed.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 April 2009 has been entered.

Examiner Amendment

4. Authorization for this examiner's amendment, listed below, was given in a telephone interview with Ray Akhavan (Reg. No. 58,120) on 15 June 2009.

In the Claims:

Please amend claims 1-4, 12-15, 34, 37 and 38 as follows:

1. (Currently Amended) A computer-implemented ~~readable data repository~~
system for delivery, storage and maintenance of in which is recorded material property
data, said data comprising a plurality of materials property datasets each dataset being
associated with a sample of a material and a test on the sample of the material, ~~each~~
~~dataset~~ the system comprising:

a) a programmed computer;

b) a data repository for storage of the plurality of datasets, coupled to the
computer, comprising

a) a metadata database in the form of instances with associated metadata
giving information about the instances, the metadata comprising at least one data
element selected from a list comprising name, description, and identifying
information, the metadata database comprising:

i) metadata on the material;

ii) metadata on the sample;

iii) metadata on the test; ~~and~~

iv) metadata on data value elements in a test result database

further comprising at least one data element selected from a list
comprising data type, units, acceptable values or ranges, and default
value; and

v) metadata on the metadata, comprising at least one data element
describing the metadata on the material, sample, test and data value
elements in the metadata database;

b) the test result database comprising a plurality of instances having associated metadata in the metadata database giving information about the instance, the instances comprising information about at least one result derived from the test on the sample of the material, each instance comprising:

i) at least one data element representing information about at least one of the material, the sample or the test; and

ii) at least one data value element representing a test result, selected from a list comprising a single data point, an equation, a graph, a data array, and a picture;

~~such that~~ wherein the metadata in the metadata database define the instances in the metadata database and the instances of test result information in the test result database, and

wherein an instance from the test result database, combined with its associated metadata from the metadata database describes the test result derived from the test on the sample of the material and

wherein the computer further comprises software encoding a method for receiving material property data from users, storage and maintenance of the test data in the datasets in the data repository, and delivery of the data from the repository to the users.

2. (Currently Amended) The system repository of claim 1, in which the metadata on metadata of claim 1 (b)(a)(v) on the material comprises at least one data element

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selected from a list comprising material name, material class, one or more material subclasses, material supplier, and material composition for composite materials.

3. (Currently Amended) The system repository of claim 1, in which the metadata on metadata of claim 1(b)(a)(v) on the sample comprises at least one data element selected from a list comprising a sample identification, a sample description, a sample size, a sample source and a sample type.

4. (Currently Amended) The system repository of claim 1, in which the metadata on metadata of claim 1(b)(a)(v) on the test comprises at least one data element selected from a list comprising a description of test method, test parameters, and test source information.

12. (Currently Amended) The system repository of claim 1, in which results that share common defining parameters are grouped to display the effect of the defining parameters on the result.

13. (Currently Amended) The system repository of claim 1, further comprising a customer database, comprising information about users of the repository.

14. (Currently Amended) The system repository of claim 13, in which the users about whom information is stored in the customer database comprise owners, users and providers of material property datasets in the repository.

15. (Currently Amended) A method of managing material property data comprising the steps of:

a) storing material property data in a repository stored in a computer memory comprising a plurality of materials property datasets, each dataset:

- i) being created by a data provider;
- ii) having at least one owner;
- iii) being associated with a sample of a material and a test on the sample of the material; and

~~iv)~~ wherein the repository comprises: ~~comprising:~~

a) a metadata database in the form of instances with associated metadata giving information about the instances, the metadata comprising at least one data element selected from a list comprising name, description, and identifying information, the metadata database comprising:

- 1) metadata on the material;
- 2) metadata on the sample;
- 3) metadata on the test; and

4) metadata on data value elements in a test result database further comprising at least one data element selected from a list comprising data type, units, acceptable values or ranges, and default value; and

5) metadata on the metadata, comprising at least one data element describing the metadata on the material, sample, test and data value elements in the metadata database;

b) the test result database comprising a plurality of instances having associated metadata in the metadata database giving information about the instance, the instances comprising information about at least one result derived from the test on the sample of the material, each instance comprising:

1) at least one data element representing information about at least one of the material, the sample or the test; and

2) at least one data value element representing a test result, selected from a list comprising a single data point, an equation, a graph, a data array, and a picture; and

c) a customer database, comprising information about users of the repository, the users about whom information is stored in the customer database comprise owners, users and providers of information in the repository

~~such that~~ wherein the metadata in the metadata database define the instances in the metadata database and the instances of test result information in the test result database, and

wherein an instance from the test result database, combined with ~~its~~ associated metadata from the metadata database describes the test result derived from the test on the sample of the material;

b) providing at least one data owner with access to at least one dataset in the repository;

c) providing at least one data user with access to at least one dataset in the repository; and

d) displaying information from at least one dataset stored in step (a) and accessed by the user in step (c) on a display.

34. (Currently Amended) The method of claim 15, in which the metadata on metadata of claim 15(a)(iv)(a)(5) on the material comprises at least one data element selected from a list comprising material name, material class, one or more material subclasses, material supplier, and material composition for composite materials.

37. (Currently Amended) The method of claim 15, in which the metadata on metadata of claim 15(a)(iv)(a)(5) on the sample comprises at least one data element selected from a list comprising a sample identification, a sample description, a sample size, a sample source and a sample type.

38. (Currently Amended) The method of claim 15, in which the metadata on metadata of claim 15(a)(iv)(a)(5) on the test comprises at least one data element selected from a list comprising a description of test method, a standards body specifying the test, test parameters, and test source information.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:

In the Examiner's Final Office Action dated 16 October 2008, claims 1-4 and 12-14 were rejected under 35 USC 103 based primarily on US PGPub 2004/0117397 to Rappold, III, US PGPub 2007/0288918 to Gouge et al, US PGPub 2005/0131861 to Arritt et al and the dissertation titled "Pulsed DC Reactive Magnetron Sputtering of Aluminum Nitride Thin Films" by Jung Won Cho and claims 15-19, 21-26, 28-30, 34-38 and 47 were rejected under 35 USC 103 based primarily on US PGPub 2004/0117397 to Rappold, III, US PGPub 2007/0288918 to Gouge et al, US PGPub 2005/0131861 to Arritt et al, the dissertation titled "Pulsed DC Reactive Magnetron Sputtering of Aluminum Nitride Thin Films" by Jung Won Cho and US PGPub 2003/0069795 to Boyd et al.

The claimed invention is directed towards a system and a method for delivery, storage and maintenance of material property data, wherein the data comprises a plurality of materials property datasets, each dataset being associated with a sample of a material and a test on the sample.

The prior art of record, Rappold, Gouge, Arritt, Cho and Boyd, do not show, teach or suggest the combined limitations of **a metadata database in the form of instances with associated metadata giving information about the instances, the metadata comprising at least one data element selected from a list comprising name, description, and identifying information, the metadata database comprising: 4) metadata on data value elements in a test result database further comprising at least one data element selected from a list comprising data type, units, acceptable values or ranges, and default value and 5) metadata on the metadata, comprising at least one data element describing the metadata on the material, sample, test and data value elements in the metadata database; and b) the test result database comprising a plurality of instances having associated metadata in the metadata database giving information about the instance, the instances comprising information about at least one result derived from the test on the sample of the material, each instance comprising: 1) at least one data element representing information about at least one of the material, the sample or the test; and 2) at least one data value element representing a test result, selected from a list comprising a single data point, an equation, a graph, a data array, and a picture**, in combination with the other claimed features. Rappold discloses the concept of a metadata table. However, Rappold fails to disclose the concept of the next level of metadata on metadata. Gouge also fails to teach the concept of the next level of metadata on metadata in the field of materials property data. The Applicant argues on pages 13-14 of the Remarks filed 15 April 2009, that none of the prior art of record

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discloses the concept of the Applicant's claimed feature of metadata on metadata in a data repository for material property data. The argument is considered to be persuasive.

An updated search for prior art on the EAST database and on domains (NPL-Google and ACM) has been conducted. The prior art searched and investigated in the database and domains does not fairly teach or suggest the teaching of the claimed subject matter as described above and reflected by the combined elements in independent claims 1 and 15. Dependent claims 2-4, 12-38 and 47 are indicated as being allowable for the same reasons stated above in regards to the independent claims.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kuen S Lu/
Primary Examiner, Art Unit 2156

/Kimberly Lovel/
Examiner
Art Unit 2167

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/KL/
/John R. Cottingham/

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Supervisory Patent Examiner, Art Unit 2167